UNITED STATES PATENT AND TRADEMARK OFFICE

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10/500,414	07/13/2006	Michael Braun	2000P16272WOUS	2277

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 January 2009</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>9-17 and 19-28</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>9-17 and 19-28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 9-17 and 19-28 were examined.

Section I: Non-Final Rejection

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The cross-reference module limitation is not clearly defined within the original disclosure.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 9-14,17, and 23-28 are rejected under 35 U.S.C. 102(b) as being

anticipated by Call et al (US Patent 5,892,939; hereafter Call). Call discloses a native

environment for a visual display object (abstract).

Claim 9. An automated ("automated plant control systems", column 1, line 36) method

for generating program modules ("plurality of modules", column 1, line 44) for

controlling field devices (column 7, line 26), from a machine-readable parameterized

(column 26, lines 24-26, "...commands have as a parameter the "target"

device")description of field devices (column 7, line 26), wherein the description is used

by a control unit (e.g., "units of the modules of plant control network", column 8, lines

24-25)for controlling the field devices (column 7, line 26), the method comprising:

providing control of in each of the field devices (column 7, line 26), wherein the control

equipment comprises at least one microprocessor (column 53, line 27), at least one

electronic storage mechanism (column 56, lines 64-65) and data input (column 14, line

23)and output (column 14, line 23) mechanisms for communicating ("...bidirectional

communication data...", column 11, lines 15-18)with the control unit; wherein the field

device (column 7, line 26)identifies parameters (column 26, lines 24-26, "...commands

have as a parameter the "target" device")of the field device(column 7, line 26) in the

description identifies characteristics of the parameters(column 26, lines 24-26,

"...commands have as a parameter the "target" device") relevant for control purpose,

and generates program modules ("plurality of modules", column 1, line 44) for the

control equipment of the field device, (column 7, line 26) which can be executed by the

field device (column 7, line 26) microprocessor (column 53, line 27) and which are

based, at least partially, on the identified parameters (column 26, lines 24-26,

"...commands have as a parameter the "target" device")and/or the characteristics of the

parameters (column 26, lines 24-26, "...commands have as a parameter the "target"

device")which have been identified as relevant for control purposes.

Claim 10. (previously presented) A method in accordance with Claim 9, wherein the

control equipment comprises at least one electronic storage data input (column 14, line

23)and output (column 14, line 23) means for communications with the control unit.

Claim 11. A method in accordance with Claim 9, wherein the identifying

characteristics of the parameters (column 26, lines 24-26, "...commands have as a

parameter the "target" device")relevant for control purposes step comprises parameters

(column 26, lines 24-26, "...commands have as a parameter the "target" device")a data

type, size, and allowed values or allowed value range.

Claim 12. A method in accordance with Claim 9, wherein for at least one parameter a

declaration module is generated in the field device, (column 7, line 26)which reserves

for the parameter (column 26, lines 24-26, "...commands have as a parameter the

"target" device") a storage segment of the at least one electronic storage-means

mechanism, and mechanism and defines a data type wherein the storage segment is

reserved, and the data type and the size correspond to the identified characteristics of the parameter.

Claim 13. (currently amended) A method in accordance with Claim 12, wherein for at least one parameter an access module is generated in the field device, (column 7, line 26) which regulates accesses by the control equipment to the storage segment defined for the parameter in the declaration module.

Claim 14. A method in accordance with Claim 13, wherein for at least one parameter(column 26, lines 24-26, "...commands have as a parameter the "target" device") a cross-referencing module is generated in the field device, (column 7, line 26)which instructs the control equipment to execute other program modules ("plurality of modules", column 1, line 44) when there is an access to the parameter(column 26, lines 24-26, "...commands have as a parameter the "target" device").

Claim 17. A method in accordance with Claim 9, wherein for at least one parameter a naming module is also generated in the field device, (column 7, line 26)which stores on the at least one electronic storage mechanism a name for the parameter, (column 26, lines 24-26, "...commands have as a parameter the "target" device") and makes it possible to access the parameter (column 26, lines 24-26, "...commands have as a parameter the "target" device")under this name.

Claim 23. A method in accordance with Claim 12, wherein for at least one

parameter a naming module is also generated in the field device, (column 7, line 26)

which stores on the at least one electronic storage mechanism a name for the

parameter, and makes it possible to access the parameter(column 26, lines 24-26,

"...commands have as a parameter the "target" device") under this name.

Claim 24. A method in accordance with Claim I3, wherein for at least one

parameter a naming module is also generated in the field device, (column 7, line

26)which stores on the at least one electronic storage mechanism a name for the

parameter, (column 26, lines 24-26, "...commands have as a parameter the "target"

device") and makes it possible to access the parameter under this name.

Claim 25. An automated ("automated plant control systems", column 1, line 36) method

for generating, from a machine-readable description of field devices (column 7, line 26),

program modules ("plurality of modules", column 1, line 44) for controlling field devices

(column 7, line 26), which are used on a control unit (e.g., "units of the modules of plant

control network", column 8, lines 24-25)for the purpose of controlling the field devices

(column 7, line 26), where each of the field devices (column 7, line 26) incorporates

control equipment with a microprocessor (column 53, line 27), with a storage

mechanism and with data input (column 14, line 23)and output (column 14, line 23)

mechanisms for communicating ("...bidirectional communication data...", column 11,

lines 15-18)with the control unit, the method comprising: each field device(column 7,

line 26) identifying parameters (column 26, lines 24-26, "...commands have as a parameter the "target" device")of the field device(column 7, line 26) comprised in the description; for each of the parameters, (column 26, lines 24-26, "...commands have as a parameter the "target" device") the field device (column 7, line 26)identifying the characteristics relevant for control purposes; and the field device(column 7, line 26) generating program modules ("plurality of modules", column 1, line 44) for the control equipment of the field device, (column 7, line 26)to be executed by the field device's (column 7, line 26)microprocessor (column 53, line 27) and which are based, at least partially, on the identified parameters(column 26, lines 24-26, "...commands have as a parameter the "target" device") and/or the characteristics of the parameters (column 26, lines 24-26, "...commands have as a parameter the "target" device")which have been identified as relevant for control purposes.

Claim 26. A method in accordance with Claim 25, further comprising: generating for at least one parameter (column 26, lines 24-26, "...commands have as a parameter the "target" device")a declaration module in the field device, (column 7, line 26) which reserves for the parameter a storage segment of the storage mechanism and/or defines a data type and/or size of the parameter, (column 26, lines 24-26, "...commands have as a parameter the "target" device")wherein the storage segment is reserved, and the data type and/or the size correspond to the identified characteristics of the parameter(column 26, lines 24-26, "...commands have as a parameter the "target" device").

Claim 27. A device for generating control modules ("plurality of modules", column 1, line

44) for field devices (column 7, line 26), from a machine-readable parameterized

(column 26, lines 24-26, "...commands have as a parameter the "target"

device")description of the field devices (column 7, line 26), for use on control units for

remote control of field devices (column 7, line 26), wherein each of the field devices

(column 7, line 26) has control equipment with at least one microprocessor (column 53,

line 27), with at least one electronic storage-means mechanism and with data input

(column 14, line 23)and output (column 14, line 23) mechanisms for communicating

("...bidirectional communication data...", column 11, lines 15-18)with the control units,

the device comprising: input (column 14, line 23)equipment for reading in and storing

the description into a field device; a first facility in the field device for identifying the

parameters (column 26, lines 24-26, "...commands have as a parameter the "target"

device")of the field device (column 7, line 26)being in the description; a second facility in

the field device (column 7, line 26)for identifying the characteristics of the parameters

defined in the description as relevant for control purposes; and a generation mechanism

in the field device(column 7, line 26) which, for at least one of the parameters(column

26, lines 24-26, "...commands have as a parameter the "target" device") identified in the

first analysis facility mechanism, generates at least one program module, which can be

executed on the field device's (column 7, line 26)microprocessor (column 53, line 27).

Claim 28. A device in accordance with Claim 27, wherein the generation mechanism

generates: a declaration module in the field device (column 7, line 26) which, for the

parameter concerned, defines a storage segment of the at least one electronic storage

mechanism, and a data type, (column 14, line 23) a set of allowed values or an allowed

value range for the segment, and an access module in the field device (column 7, line

26) which, for the parameter concerned, controls accesses by the control equipment to

the storage segment defined in the declaration module, and which instructs the control

equipment to execute other modules when program it accesses the parameter(column

26, lines 24-26, "...commands have as a parameter the "target" device").

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

8.   Claims 15,16,18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Carr in view of Blevins et al., (US Patent 6,445,963; hereafter Blevins). Claims 15-

22 teaches the limitations as set forth above accept the limitation of a control unit does

not lie within the set of allowed values or lies outside the permissible range, as

applicable to which Blevins teaches

Per claims 15,16,18-22 Blevins teaches

- checks whether the new parameter value lies within the set of allowed values or

  within the allowed range, as applicable (section discusses the parameter limits

  via the module control loop, column 9, lines 10-48, in particular lines 25-40)

At the time of invention it would have been obvious to one of ordinary skill in the

art to modify Carr by way of Blevins because Blevins teaches a method to generate a

process model and without having to reprogram a control routine to implement model

predictive or other advanced control. As a result, this method saves time, costs and

provides use of the created process model for other purposes, such as for simulation

and the production of virtual process outputs within the process control environment.

Section II: Response to Arguments

112

9.   Withdrawn.

102/103

10.   Applicants are thanked for addressing theses issue; however their arguments are

non-persuasive in view of the prior art. The term generating is defined i.e.

www.dictionary.com as to bring into existence. Clearly the plurality of modules in Call is

in existence for some event else they would be listed to perform an event. Furthermore,

applicants have admitted the inherent property of software program modules performing

their functionality automatically (see applicants' response, pg 7 of 10, last paragraph,

lines 5-6), thus is represented by the prior art of Call in column 1, lines 45-46.

11.   Call does teach a variety of field devices (see column 7, lines 24-26).

Furthermore, in figure 1 for example, the information generated from the field devices

migrate to the process controller of 125, on the data hiway 135, through the hiway

gateway and on to the local control network. The data can, for example, head to the

computer module 180 that "stores" said data.

12.   Applicants assert the prior art fails to teach a declaration module. The declaration

module as defined by the specification (see paragraph 0037) as defining for v a

particular segment on the storage means and its data type as "floating point". Now

floating point is a decimal point whose location is not fixed, used especially in computer

operations thus is common in all computer functions. Clearly Call does have computers

executing operations in relation to the field device.

13.   Applicants assert the prior art fails to teach an access module. Referring to the

disclosure, the access module is a checker of equipment of the field device (see

paragraph 0037). Call teaches a plant control network that supervises of the control

process of the plurality of physical modules (column 7, lines 36-52), thus if a function is

supervising an event. Furthermore, the naming module is nothing more than naming the

software file name in a computer which is obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

3715.

If attempts to reach the examiner by telephone are unsuccessful, please contact

examiner's supervisor Mr. Albert Decady (571-272-3819). The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to

questions regarding access to the Private PAIR system, contact the Electronic Business

Center (EBC) (toll-free (866-217-9197)).

/Albert Decady /
Supervisory Patent Examiner
Tech Center 2100

/Thomas H. Stevens/

Examiner, Art Unit 2121